Case Report

Non-puerperal uterine inversion with submucous fibroid - A rare case report

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Received - 25 August 2017 Initial Review - 18 September 2017 Published Online - 18 February 2017

ABSTRACT

Uterine inversion is an unusual, rare entity in which the uterus descends in reverse direction exposing endometrial surface through the cervix and classified as puerperal or obstetric and non-puerperal or gynecological inversion. Non-puerperal uterine inversion is very rare and often clinically misdiagnosed by the clinician. Cervix remains drawn up thus making the vaginal part of cervix difficult to palpate. Acute inversion usually occurs in the 3rd stage of the labor and is an obstetric emergency. Diagnosis is based on the clinical and imaging techniques. We report a case of a postmenopausal non-puerperal uterine inversion secondary to submucous fibroid and its successful management.

Key words: *Cervix, fibroid, non-puerperal, submucosal, uterine inversion*

Uterine inversion is an unusual, rare entity and classified as puerperal or obstetric and non-puerperal or gynecological inversion. Uterine fundus usually means the uterus is turning inside out. The fundus descends through the cervix thus exposing the submucosal inner surface to the exterior [1]. This may be secondary to a submucosal fibroid. It is a rare condition that occurs as a complication of parturition [2]. Further, in non-puerperal cases, it is an uncommon event seldom documented. Predisposing factors may be existing uterine pathology [3]. Common inciting factors are uterine fibroids, endometrial polyps, and neoplasms. Proposed precipitating factors for acute uterine inversion are sudden emptying of uterus, thinning of uterine walls and dilatation of cervix. The diagnosis is based on the clinical examination, but confirmation is only done through histopathology or radiologic investigations such as magnetic resonance imaging (MRI) or sonography [4]. We report a case of postmenopausal non-puerperal uterine inversion with submucous fibroid with infection and severe anemia.

CASE REPORT

A 51-year-old woman presented to Outpatient Department of Katihar Medical College and Hospital, with complaints of severe backache and pain abdomen since 4 days and mass coming out from vagina since 2 days. She was referred from local district hospital as a case of prolapsed uterus. Married 30 years back, had one male child of 29-year-old, and her husband died 2 years back. She attained menopause 2 years before but gave a history of mild irregular minimal bleeding even after menopause occasionally. She also complained of white discharge with foul smell for the last 4 months. Past medical, surgical, and family histories were not of clinical relevance.

She was conscious and irritable, markedly pale, with a pulse rate of 100/min, body temperature 1010F, and BP 90/60 mm of Hg. On admission, she was able to pass urine, but mass was causing inconvenience to attend to toilet, and the patient was not able to walk properly because the mass was in between thighs, and due to fever. Abdomen was soft, mild tenderness was present on palpating the lower abdomen. Per speculum and bimanual examination findings revealed huge mass about 15×10 cm presented outside vulva, attached to the inverted uterus at its fundus (Fig. 1). Due to secondary infection, it foul smelled, and uterus could not be palpated.

Provisional diagnosis of mass per vaginam was done with differential diagnosis of big cervical fibroid polyp and prolapsed uterus. The patient was sent for ultrasonography (USG) whole abdomen. On USG, abnormal uterine fundal contour with a homogeneous globular mass in vagina was reported. Hemogram revealed Hb 6.5 g% and leukocytosis (14400/mm^3). The patient was given bed rest with daily dressing and packing of mass, antibiotics (intravenous cefotaxime and metronidazole), blood transfusion of 4 units and operated after 1 week of receiving inpatient healthcare. On repeat investigations, Hb rose to 11 gm/dl, and leukocyte counts were reduced to 8600/mm [3].

In view of her age, vaginal hysterectomy was planned. As the endometrial surface was exposed and bleeding, the big myoma attached to the inverted uterine fundus was excised first taking care that uterus was not perforated (Fig. 2). After excision of myoma through vaginal route and nonvisibility of tissue planes spontaneous decision of abdominal hysterectomy was taken.

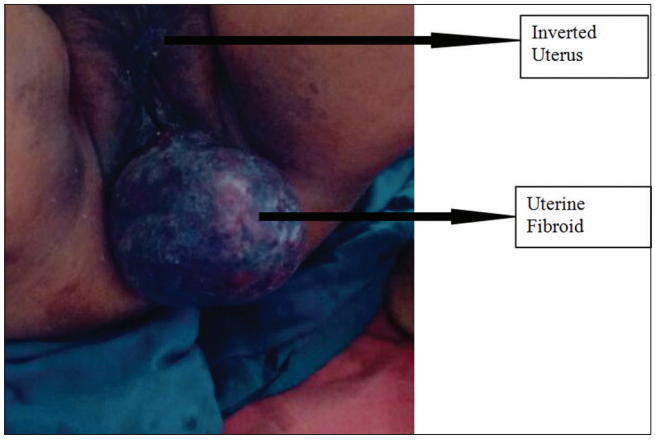

Figure 1: Pre-operative image of showing inverted uterus with uterine fibroid

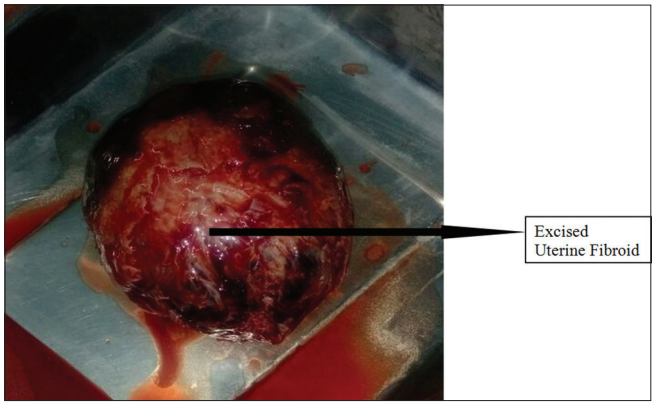

Figure 2: Post-operative image of excised uterine fibroid

On opening the abdomen, both ovaries and tubes were found on either side of the constriction cup laterally. Cup's rim was cut on its posterior aspect, as the constricting ring was too tight and fundus was pushed up through cervix and with traction on round ligaments. Routine total abdominal hysterectomy was performed, and no difficulty was encountered during surgery. The patient was discharged from hospital after 10 uneventful post-operative days. A mass of 15×10 cm was sent for histopathological examination which revealed a leiomyoma with remarkable uterine adnexa.

DISCUSSION

Non-puerperal uterine inversion may be idiopathic or associated with various predisposing factors. It may be incomplete, complete or total [5]. In a uterine inversion, the patient may have severe pain in lower abdomen or excessive bleeding whereas chronic inversion may be insidious or patient may have lower abdominal discomfort, vaginal discharge, irregular vaginal bleeding, or anemia [6]. In chronic inversion with sloughing of endometrium, diagnosis becomes difficult hence radiological intervention is sought [7]. As non-puerperal uterine inversion is rarely encountered by the gynecologist thus, diagnosis and management could be challenging [8].

Diagnosis of acute can be made on the basis of patient complaint, but chronic form can be asymptomatic or associated with pelvic pain with a sensation of heaviness or bleeding. Anemia, urinary dysfunction, and vaginal mass are mainly the chief complaints which help in diagnosing this condition. The differential diagnosis, acute non-puerperal uterine inversion the third degree. In our case, on clinical examination, the diagnosis was not clear, so detailed ultrasound of abdomen and pelvis was done to confirm the diagnosis. In transvaginal ultrasound, only mass is visible whereas in transabdominal ultrasound mass at the cervicovaginal level is visible. Computed tomography scan is of limited value in this disease. Hence, till now MRI is the best imaging modality to diagnose uterine inversion. In MRI, "bulls-eye" configuration on an axial image is seen [9].

Although generally associated with large benign tumors, in 15–20% they may be malignant; so before planning surgery biopsy must be done. Repositioning of the uterus can be done manually in acute cases, but in chronic non-puerperal case, manual reposition is not possible, especially in those cases associated with tumors. In chronic non-puerperal cases, surgery is imperative. Considering patient's age, reproductive desire and associated conditions, surgical repositioning, or hysterectomy can be done. Surgical repositioning can be done vaginally or through abdominal route [10,11] but in our case, total abdominal hysterectomy with bilateral salpingo-oophorectomy was performed, the patient discharged, and follow-up advised.

CONCLUSION

In our case, acute inversion occurred in a postmenopausal woman with fundal fibroid and was associated with secondary infection. The leiomyoma might have exposed to the vaginal environment resulting secondary infection with features of systemic infection in the patient. After treating her infection and improving her general condition, surgical management was possible.

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Funding: None; Conflict of Interest: None Stated.

How to cite this article: Priyanka, Shambhavi. Non-puerperal uterine inversion with submucous fibroid - A rare case report. Indian J Case Reports. 2018;4(1):73-75.